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(54) Title: A METHOD OF PRODUCING AN INTERPENETRATING POLYMER NETWORK (IPN), THE IPN AND USE THEREOF

(57) Abstract: The invention comprises a method of producing an interpenetrating polymer network (IPN) comprising the steps of I) providing a silicone polymer composition; (ii) providing one or more monomers for a polymer; (iii) providing a solvent for the one or more monomers; iv) exposing said silicone polymer composition to said one or more monomers and said solvent to precipitate monomer within said silicone polymer composition and v) polymerizing said monomer to form an IPN, wherein said solvent has a surface tension at the exposing step of about 15mNZm or less. It is preferred that the solvent, which is preferably CO₂, in the exposing step is in or near its supercritical state. The method is fast and simple, and the dispersion of the monomers may be controlled to thereby control the amount and distribution of the interpenetrating network in the silicone material. Further more the method results in new materials, where silicone polymers are used as the basic materials.